

LTBI CASE STUDIES

From the slide set – CDC : Targeted Tuberculosis (TB) Testing and Treatment of Latent TB Infection and CDC self study modules

CASE STUDY 1

A 45-year-old U.S. born woman is referred to the health department by her private physician because she was found to have latent TB infection as part of an employee testing program.

She has a high BMI and high blood pressure. Upon further questioning, she reports that she used IV drugs in the past and has never been tested for HIV infection.



CASE STUDY 1 - QUESTION

Chat

1. What conditions does this woman have that increase the risk that she will develop TB disease?
 - I.V. drug use increases the risk that LTBI will progress to TB disease.
 - May also be at risk for HIV infection because of injection drug use history. HIV is the strongest known risk factor for developing TB disease. This woman should be offered HIV counseling, testing, and referral.
 - A high BMI and high blood pressure are NOT risk factors for TB disease.



CASE STUDY 2

47-year-old Hispanic male, moved to the U.S. from Bolivia 4 years ago. He received a tuberculin skin test (TST) due to recent contact to an infectious pan-sensitive TB case. TST result = 5mm induration. He feels well and has no complaints.

3 months later, he is retested and TST now = 23 mm induration. He remains without symptoms of TB disease and a chest X-ray is obtained which is within normal limits.



CASE STUDY 2 - QUESTIONS

Poll!

1. What are this patient's risk factors for TB infection or disease?
 - A) Recent immigrant to the US from a country with a high prevalence of TB
 - B) Patient is a contact of an infectious TB case
 - If the patient had not been a contact, his recent immigration (less than 5 years) would have made him a candidate for TB testing, but the 5-mm reaction would not be considered positive

Chat

2. What would you have recommended for the management of this patient based on his initial test result?
 - As a contact of an active TB case, 5 mm of induration is considered positive
 - This patient should have been offered treatment for TB infection immediately after the first TST



CASE STUDY 2 - QUESTIONS

Chat

3. What are appropriate treatment regimen options for this patient?
- Any regimen that would work best for him
 - Rifampin-based regimens are preferred as they are shorter and have higher completion rates

Poll!

4. What steps should you as the case manager take to prepare this patient for treatment?
- A) Provide patient education related to the medications, potential side effects and monitoring that will be needed
 - B) Discuss and address any potential barriers to treatment adherence
 - C) Discuss method for taking treatment (e.g., VDOT or self-administered therapy)
 - F) Provide patient with phone number to reach treating doctor or public health staff



CASE STUDY 3

- Patient History
- 24-year-old female born in the Philippines
- Moved to U.S. from Philippines > 5 yrs ago
- Plans to work in a correctional facility
- TST result negative (0 mm) 1 year ago
- TST for pre-employment physical = 26 mm
- Chest X-ray is normal
- No symptoms of TB disease
- No known contact with a TB patient



CASE STUDY 3 - QUESTION

Poll!

1. What are this patient's risk factors for TB infection or disease?
 - B) From a high TB incidence country – exposure risk
 - C) Patient's TST converted from negative to positive (within a 2-year period)
 - TST conversion is an indicator for recent TB infection and therefore, increased risk for progressing from TB infection to TB disease



CASE STUDY 3 - QUESTIONS

Chat

2. What are appropriate treatment regimen options for this patient?
- Any regimen, however, shorter regimen may be best option
 - Rifampin-based regimens are preferred as they are shorter and have higher completion rates

Poll!

3. What would be some clinical considerations prior to starting treatment?
- A) Ask about BCG vaccination and respond to questions/concerns about TST result. Provide option for IGRA test if h/o BCG and questioning TST result
 - B) Potential risk for Hep B due to country of birth; hep serology may be indicated
 - C/D/E) Provide patient education related to the medication(s); ask about contraception method; potential for drug-drug interaction b/w oral contraceptives and rifampin





CDC : Latent TB Infection info:

<https://www.cdc.gov/tb/topic/treatment/decideltbi.htm>

NTCA: Testing and Treatment of Latent Tuberculosis Infection in the United States: Clinical Recommendations (online update coming soon)

<http://www.tbcontrollers.org/resources/tb-infection/clinical-recommendations/#.YKKQPahKhE>

Centers of Excellence:

[Curry International Tuberculosis Center \(CITC\)](#)

[Global Tuberculosis Institute at Rutgers, The State University of New Jersey \(GTBI\)](#)

[Mayo Clinic Center for Tuberculosis \(MCCT\)](#)

[Southeastern National Tuberculosis Center \(SNTC\)](#)

BCG Atlas

<http://www.bcgatlas.org/>

TST/IGRA online interpreter site

<http://tstin3d.com/>

CURRY WARM LINE: (877) 390-6682 or (415) 502-4700